

1 AMENDMENTS TO THE CLAIMS

1 1. (currently amended) A method for producing a pigment, comprising:

2 a) adding a phosphorus compound to an aqueous suspension of titanium dioxide base material,
3 then

4 b) adding a titanium compound; and

5 c) adding an aluminum compound,

6 wherein no significant amount of zirconium compound is added to the aqueous suspension of
7 titanium dioxide base material.

1 2. (Original) The method of claim 1; further comprising:

2 d) adjusting the pH value of the suspension to a value of from 8 to 10.

1 3. (Original) The method of claim 1, wherein the added phosphorus compound is an inorganic
2 phosphorus compound.

1 4. (Original) The method of claim 3, wherein the inorganic phosphorus compound is selected
2 from the group consisting of alkali phosphates, ammonium phosphates, polyphosphates,
3 and phosphoric acid.

1 5. (Original) The method of claim 1, wherein the added phosphorus compound is 0.4 to 6.0%
2 by weight calculated as P_2O_5 , referred to TiO_2 base material in the suspension.

1 6. (Original) The method of claim 5, wherein the added phosphorus compound is 1.0 to 4.0%

2 by weight, calculated as P_2O_5 , referred to TiO_2 base material in the suspension.

1 7. (Original) The method of claim 6, wherein the added phosphorus compound is 1.6 to 2.8%
2 by weight, calculated as P_2O_5 , referred to TiO_2 base material in the suspension.

3 8. (Original) The method of claim 1, wherein the titanium compound added is a hydrolyzable
4 titanium compound.

1 9. (Original) The method of claim 8, wherein the titanium compound added is selected from the
2 group consisting of titanyl sulphate and titanyl chloride.

1 10. (Original) The method of claim 8, wherein the quantity of titanium compound added is 0.1
2 to 3.0% by weight, calculated as TiO_2 , referred to TiO_2 base material in the suspension.

1 11. (Original) The method of claim 10, wherein the quantity of titanium compound added is
2 0.1 to 1.5% by weight, referred to TiO_2 base material in the suspension.

1 12. (Original) The method of claim 11, wherein the quantity of titanium compound added is
2 0.1 to 1.0% by weight, calculated as TiO_2 , referred to TiO_2 base material in the
3 suspension.

1 13. (Original) The method of claim 1, wherein the quantity of titanium compound added is 0.1
2 to 1.0% by weight, calculated as TiO_2 , referred to TiO_2 base material in the suspension.

1 14. (Original) The method of claim 1, wherein the aluminum compound added is alkaline.

1 15. (Original) The method of claim 14, wherein the alkaline aluminum compound is selected
2 from the group consisting of sodium aluminate, alkaline aluminum chloride, and alkaline
3 aluminum nitrate.

1 16. (Original) The method of claim 14, further comprising

2 d) adjusting the pH value of the suspension to a value of from 8 to 10 after step c).

1 17. (Original) The method of claim 1, wherein the aluminum compound added is acidic.

1 18. (Original) The method of claim 17, further comprising:

2 d) adjusting the pH value to a value between 8 and 10 by adding an alkaline aluminum
3 compound.

1 19. (Original) The method of claim 17, further comprising:

2 d) adjusting the pH value to a value between 8 and 10 by adding an alkaline aluminum
3 compound in combination with a base.

4 20. (Original) The method of claim 1, wherein during the addition of the aluminum compound,
5 the pH value of the suspension is maintained constant in the range from 2 to 10 by the
6 simultaneous addition of a pH modifying compound.

1 21. (Original) The method of claim 20, wherein during the addition of the aluminum compound,
2 the pH value of the suspension is maintained constant in the range from 4 to 9 by the
3 simultaneous addition of a pH modifying compound.

4 22. (Original) The method of claim 21, wherein during the addition of the aluminum compound,
5 the pH value of the suspension is maintained constant in the range from 6 to 8 by the
6 simultaneous addition of a pH modifying compound.

1 23. (Original) The method of claim 1, wherein the total quantity of the aluminum compounds
2 added is 2.0 to 7.5% by weight, calculated as Al_2O_3 , referred to TiO_2 base material.

3 24. (Original) The method of claim 23, wherein the total quantity of the aluminum compounds
4 added is 3.5 to 7.5% by weight, calculated as Al_2O_3 , referred to TiO_2 base material.

1 25. (Original) The method of claim 1, further comprising
d) adding a magnesium compound.

1 26. (Original) The method of claim 25, wherein the magnesium compound added is selected
2 from the group consisting of magnesium sulphate and magnesium chloride.

1 27. (Original) The method of claim 25, wherein the quantity of magnesium compound added is
2 0.1 to 1.0% by weight, calculated as MgO , referred to TiO_2 base material in the
3 suspension.

1 28. (Original) The method of claim 27, wherein the quantity of magnesium compound added is
2 0.2 to 0.5% by weight, calculated as MgO , referred to TiO_2 base material in the
3 suspension.

1 29. (Original) The method of claim 25, further comprising

2 e) treating the pigment with an added material in order to influence the final pH value of the
3 suspension wherein the final pH value of the pigment is controlled by the pH and the
4 quantity of the added material.

1 30. (Original) The method of claim 29, where the added material is a nitrate compound.

1 31. (Original) The method of claim 30, where the finished pigment contains up to 1.0% by

2 weight NO₃.

1 32. (canceled)

1 33. (canceled)

1 34. (Original) The method of claim 1, where the titanium dioxide base material is milled before
2 step a).

1 35. (Original) The method of claim 34, where the titanium dioxide base material is wet-milled
2 and where a dispersant is added during milling.

1 36. (canceled)

1 37. (canceled)

1 38. (canceled)

1 39. (canceled)

1 42: 40. (currently amended) A material, comprising:

2 a titanium dioxide pigment material; the titanium dioxide comprising ~~a very large plurality of~~
3 TiO₂ particles, each particle having a surface;

4 phosphorus containing material attached to the surface of each particle;

5 titanium containing material additional to the titanium dioxide material of the surface attached to
6 the phosphorus containing material; and

7 aluminum containing material attached to the titanium containing material additional to the
8 titanium dioxide material of the surface.

1 ~~43:~~ 41. (currently amended) The material of claim ~~42~~ 40, further comprising;
2 magnesium containing material attached to the aluminum containing material.

1 ~~44:~~ 42. (currently amended) The material of claim ~~42~~ 40, further comprising;
2 nitrate containing material attached to the aluminum containing material.

1 ~~45:~~ 43. (currently amended) The material of claim ~~42~~ 40, further comprising;
2 nitrate and magnesium containing material attached to the aluminum containing material.

1 ~~46:~~ 44. (currently amended) The material of claim ~~42~~ 40, wherein the resultant particles
2 contain an insignificant amount of zirconium.

1 ~~47:~~ 45. (currently amended) The material of claim ~~42~~ 40, wherein the titanium dioxide
2 pigment material is incorporated into further comprising a decorative laminated paper.

1 ~~48:~~ 46. (canceled) The material of claim ~~42~~ 40 further comprising a resin.

1 47. (new) The material of claim 41, wherein the titanium dioxide pigment material is
2 incorporated into a decorative laminated paper.

1 48. (new) The material of claim 42, wherein the titanium dioxide pigment material is
2 incorporated into a decorative laminated paper.

1 49. (new) The material of claim 43, wherein the titanium dioxide pigment material is
2 incorporated into a decorative laminated paper.

1 50. (new) The material of claim 44, wherein the titanium dioxide pigment material is
2 incorporated into a decorative laminated paper.

1 51. (new) A method for producing a pigment, comprising:

2 a) adding a phosphorus compound to an aqueous suspension of titanium dioxide base material,
3 wherein the added phosphorus compound is 1.6 to 2.8% by weight, calculated as P_2O_5 ,
4 referred to TiO_2 base material in the suspension; then

5 b) adding a titanium compound; and

6 c) adding an aluminum compound.

1 52. (new) A method for producing a pigment, comprising:

2 a) adding a phosphorus compound to an aqueous suspension of titanium dioxide base material,
3 then

4 b) adding a titanium compound; and

5 c) adding an acidic aluminum compound.

1 53. (new) The method of claim 52, further comprising:

2 d) adjusting the pH value to a value between 8 and 10 by adding an alkaline aluminum
3 compound.

1 54. (new) The method of claim 52, further comprising:

2 d) adjusting the pH value to a value between 8 and 10 by adding an alkaline aluminum
3 compound in combination with a base.

4 55. (new) A method for producing a pigment, comprising:

5 a) adding a phosphorus compound to an aqueous suspension of titanium dioxide base material,
6 then

7 b) adding a titanium compound; and

8 c) adding an aluminum compound, and

d) adding a magnesium compound.

1 56. (new) The method of claim 55, wherein the magnesium compound added is selected from
2 the group consisting of magnesium sulphate and magnesium chloride.

1 57. (new) The method of claim 55, wherein the quantity of magnesium compound added is 0.1
2 to 1.0% by weight, calculated as MgO, referred to TiO₂ base material in the suspension.

1 58. (new) The method of claim 57, wherein the quantity of magnesium compound added is 0.2
2 to 0.5% by weight, calculated as MgO, referred to TiO₂ base material in the suspension.

1 59. (new) The method of claim 55, further comprising

2 e) treating the pigment with an added material in order to influence the final pH value of the

3 suspension wherein the final pH value of the pigment is controlled by the pH and the
4 quantity of the added material.

1 60. (new) The method of claim 59, where the added material is a nitrate compound.

1 61. (New) The method of claim 60, where the finished pigment contains up to 1.0% by weight
2 NO_3 .